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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,979	03/30/2004	Scott Sibbett	21058/0206803-US0	8637
75172	7590	01/24/2008		
Intel Corporation c/o DARBY & DARBY P.C. P.O. BOX 770 CHURCH STREET STATION NEW YORK, NY 10008-0770			EXAMINER NOGUEROLA, ALEXANDER STEPHAN	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 01/24/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/814,979		SIBBETT, SCOTT	
	Examiner		Art Unit	
	ALEX NOGUEROLA		1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/03/2007 (RCE).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11 and 13-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11 and 13-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed October 31, 2007 ("Amendment") have been fully considered but they are not persuasive. In the Office action of August 31, 2007 the Examiner set forth three reasons why the instant application is not enabled.

Regarding the first reason, that the description of how convective flow is generated in specification paragraph [0018] is inconsistent, if not contradictory, Applicant has amended paragraph [0018]. However, this amendment replaces one inconsistency with another one. If negative (electroosmotic) pressure has been created in channel 18 due to flow of fluid into reservoir 14 from reservoir 16, how can fluid in channel 18 flow toward reservoir 16 when (a) it will be opposed by fluid flowing from reservoir 16 and channel 22 towards reservoir 14, (b) channel 22 is a region of suppressed electroosmotic flow and so will hinder the electroosmotic flow from reservoir 12 and channel 18, and (c) the driving force for the negative pressure in channel 18 is a negative pressure in channel 20 that will pull the fluid in channel 18 and reservoir 12 toward reservoir 14? In sum, under the conditions described in specification paragraph [0018] the preferred flow of fluid from reservoir 12 is towards reservoir 14, not towards reservoir 16.

Regarding the second reason for non-enablement, the original disclosure makes no mention of a fan, blower, or (mechanical) pump which Applicant implicitly asserts is

how "convective" flow would have been understood to be caused by one of ordinary skill in the art at the time of the invention. Indeed, specification paragraph [0018], which is discussed above, only refers to flow due to negative pressure caused by electroosmotic flow in another region of the microchannel network. Such flow would not be deemed equivalent by one of ordinary skill in the art to flow caused by an external agent or external influence such as a fan, blower, or pump as noted in the textbook references cited by Applicant in his Amendment. Moreover, in the article provided by the Examiner in his previous Office action (Posner et al.), which it should be emphasized is concerned with electrokinetic flow in a microchannel system with intersecting microchannels, convective flow is unstable, turbulent flow due to coupling of electric fields and ionic conductivity gradients. See the abstract; Figure 2; and the Conclusion. Thus, Applicant's description of convective flow in the original specification is ambiguous as to what is intended.

Regarding the third reason for non-enablement, while the Examiner acknowledges that Applicant may be his own lexicographer the Examiner disagrees 'that that [the] phrase "counteractive chromatography" is clearly defined in the specification.' The phrase "counteractive chromatography" occurs in three paragraphs in the specification, paragraphs [0021], [0037], and [0038]. In none of these paragraphs is "counteractive chromatography" defined as, for example, a term in a dictionary may be. Paragraph [0037] comes closest. However, it "defines" "counteractive chromatography" in terms of convective flow (as do the other two paragraphs) as a key aspect of the technique, which as argued in the previous Office action and this Office

action is not enabled and is ambiguous. Thus, the phrase "counteractive chromatography" is also not enabled and ambiguous. Since it is not enabled or clearly defined, the extent of usage of the phrase "counteractive chromatography" is relevant in determining how one with ordinary skill in the art would have understood the phrase. Applicant notes other research groups studying counteractive chromatography. Unless these groups publicly expressed what they understood "counteractive chromatography" to mean at the time of the invention this point is moot.

For the reasons set forth above the rejections under 35 U.S.C. 112, first paragraph are maintained.

***Status of the Objections and Rejections pending since the Office action of
August 31, 2007***

2. The rejections of claims 1-3, 5-11, and 13-25 under 35 U.S.C. 112, first paragraph, are maintained.
3. The rejection of claim 22 under 35 U.S.C. 112, second paragraph, is withdrawn.
4. The objections to claims 1 and 22 are withdrawn.

Final Rejection

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX NOGUEROLA whose telephone number is (571) 272-1343. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NAM NGUYEN can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alex Noguerola
Primary Examiner
AU 1795
January 22, 2008